

We welcome your comments on the *Bulletin*. Email them to the Editor at bulletin@rasc.ca.

A PDF version of the *Bulletin* is available [here](#).
 A Web-based version of the *Bulletin* is available [here](#).

➤ Editor's Notebook by David Garner

Summer is Here!

Just a quick note to bring you up to date: there won't be another transit of Venus until 2117; The 2012 GA in Edmonton ends today; and a welcome to Richard Newman who will be helping out with eNews postings on the National Web site.

➤ News @ RASC.ca

One Hundred Thousand!

by [Ron Macnaughton](#), Chair, Education Committee

That is the total number of members of the public who attended RASC outreach events. The chart below, sorted by Centre, summarizes entries from 2011 June 22 to 2012 June 21.

| Centre | Events | Public | Volunteers | Star Finders | Cherche etoiles | Moon Gazers | Guides Lunaire | Eclipse Glasses |
|--------------------------------|--------|--------|------------|--------------|-----------------|-------------|----------------|-----------------|
| Calgary Centre | 19 | 17644 | 438 | 3753 | 0 | 510 | 0 | 1050 |
| Centre Francophone du Montreal | 2 | 282 | 20 | 0 | 7 | 0 | 0 | 100 |
| Charlottetown Centre | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Edmonton Centre | | 1790 | 73 | 480 | | | | |
| Halifax Centre | 34 | 1585 | 68 | 954 | 91 | 0 | 0 | 250 |
| Hamilton Centre | 1 | 200 | 1 | 0 | 0 | 0 | 0 | 50 |
| Kingston Centre | 1 | 865 | 38 | 0 | 0 | 0 | 0 | 35 |
| London Centre | 6 | 2339 | 34 | 0 | 0 | 0 | 0 | 5 |
| Mississauga Centre | 8 | 2168 | 135 | 765 | 0 | 0 | 0 | 950 |

| | | | | | | | | |
|-----------------------|------------|---------------|-------------|--------------|-------------|-------------|-----------|-------------|
| Montreal Centre | 17 | 1190 | 67 | 550 | 169 | 142 | 86 | 112 |
| New Brunswick Centre | 38 | 4326 | 251 | 1826 | 119 | 754 | 0 | 193 |
| Niagara Centre | 3 | 1200 | 46 | 210 | 0 | 25 | 0 | 0 |
| Okanagan Centre | 22 | 12630 | 375 | 3903 | 120 | 460 | 0 | 4 |
| Ottawa Centre | 16 | 13175 | 119 | 5422 | 1117 | 100 | 0 | 1680 |
| Prince George Centre | 2 | 1747 | 94 | 1592 | 0 | 0 | 0 | 0 |
| Quebec Centre | 1 | 55 | 6 | 38 | 0 | 22 | 0 | 0 |
| Regina Centre | 15 | 2463 | 145 | 391 | 0 | 196 | 0 | 1055 |
| Saskatoon Centre | 6 | 1748 | 106 | 218 | 0 | 70 | 0 | 975 |
| St. John's Centre | 3 | 240 | 8 | 60 | 0 | 25 | 0 | 20 |
| Sunshine Coast Centre | 2 | 3075 | 94 | 491 | 0 | 28 | 0 | 50 |
| Thunder Bay Centre | 1 | 1620 | 31 | 305 | 0 | 0 | 0 | 500 |
| Toronto Centre | 36 | 8694 | 549 | 5878 | 2 | 101 | 0 | 325 |
| Vancouver Centre | 4 | 8209 | 357 | 3232 | 0 | 0 | 0 | 500 |
| Victoria Centre | 39 | 8698 | 269 | 1613 | 0 | 20 | 0 | 543 |
| Windsor Centre | 4 | 700 | 14 | 0 | 0 | 0 | 0 | 190 |
| Winnipeg Centre | 7 | 3180 | 47 | 70 | 0 | 0 | 0 | 808 |
| Unattached | 7 | 1462 | 43 | 253 | 0 | 2 | 0 | 120 |
| Grand Total | 295 | 101285 | 3428 | 32004 | 1625 | 2455 | 86 | 9515 |

Entries can be made by clicking the Event Reporting button at www.rasc.ca. Under comments, we especially appreciate quotes from people reacting to the sky.

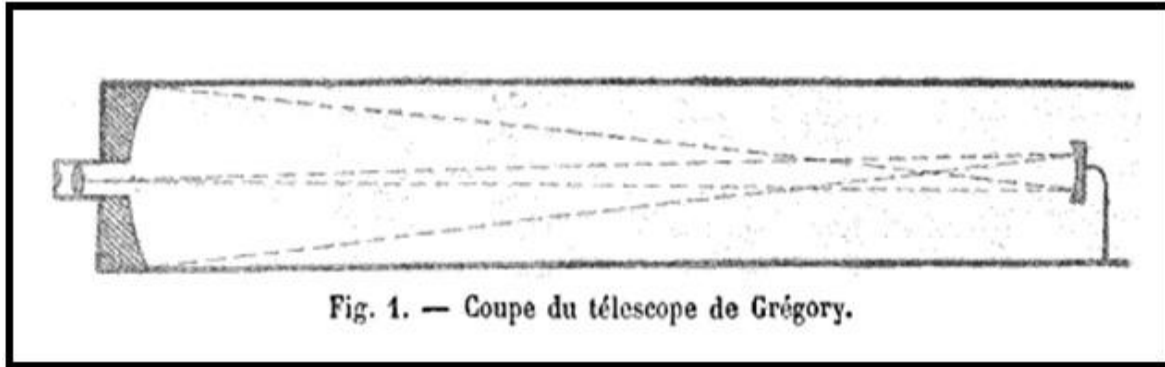
More breakdowns are in the Education report at www.rasc.ca / members area / national council / reports.

Observing the 1769 Transit

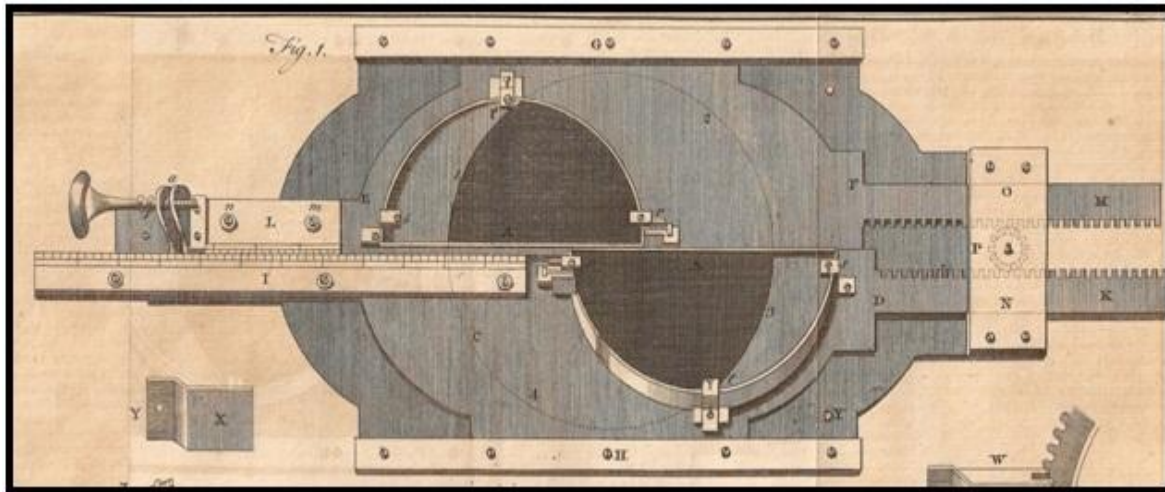
by [Ron Macnaughton](#), Chair, Education Committee

Captain Cook in Tahiti and Wales and Dymond near Churchill, Manitoba, observed the transit 243 years ago. That is a complete Earth-Venus cycle because 395 Venus years is 243 Earth years, 1 day and 40 minutes.

They used Gregorian reflecting telescopes that have a concave paraboloid primary and a concave ellipsoid secondary to reflect light back through a hole in the primary. From the outside, they might look like a refractor.

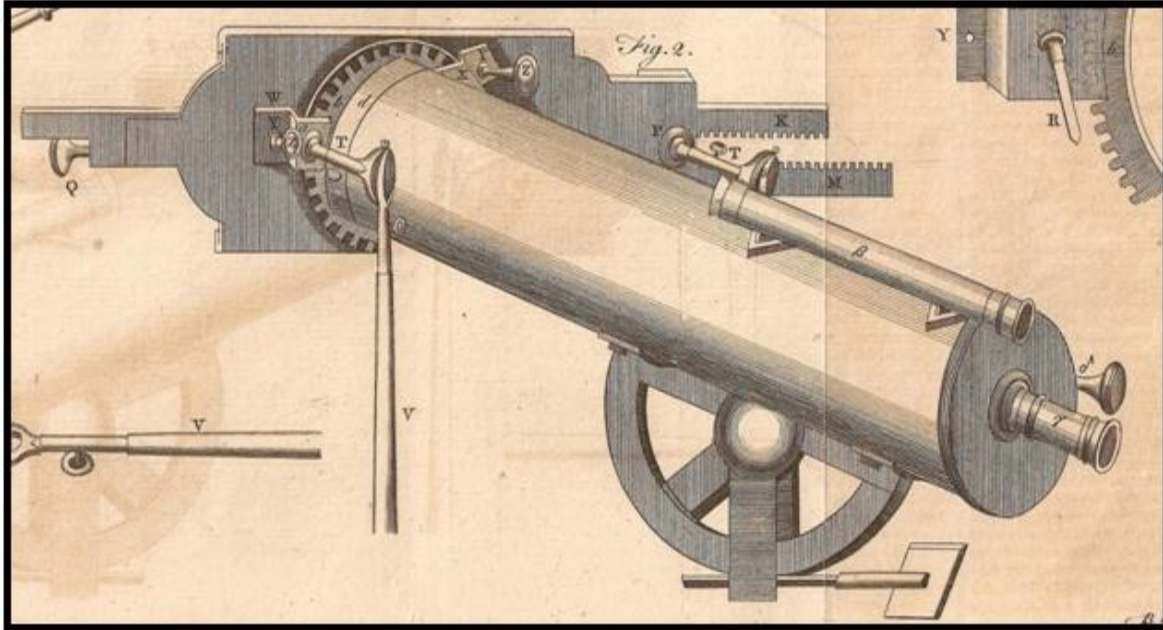


Wales and Dymond had two telescopes, one for observing the Sun directly, the other with a heliostat. The two lenses at the front can be moved back and forth to accurately measure angles.



The detailed measurements of times and angles are in a paper by Wales and Dymond, which can be seen at <http://gallica.bnf.fr/ark:/12148/bpt6k55864n/f509.pagination>.

Somehow, the eyepieces were smoked so these astronomers could look directly at the Sun. I doubt if that would meet modern standards. So for over 6 hours, Wales and Dymond twiddled knobs of alt-az scopes to follow the Sun, rotated the heliostat so it was perpendicular to the limb-Venus line, then adjusted the sides of the heliostat so the image of the limb and Venus lined up.



What an incredible example of observing skill!

RASC Group Property and Auto Insurance

by [Deborah Thompson](#), Executive Director

RASC Group Property & Auto Insurance Program exclusive to RASC members

First Durham Insurance Brokers & Waterloo Insurance

First Durham Insurance is pleased to present The RASC Group Property and Auto insurance program, exclusively for members of The Royal Astronomical Society of Canada. As a RASC member you will have exclusive access to a wide range of home and auto insurance products, while saving up to 60%. Underwritten by Waterloo Insurance, one of the largest insurers in Canada and specializing in Group Property and Auto Insurance programs. Waterloo insurance has partnered with hundreds of group programs across Canada and has the strength and financial depth to honour their commitments and financial obligations. RASC members will have access to dedicated insurance professionals who will deliver exceptional service while putting your need for coverage and value as their first priority.

For more information, click: [RASC Group Home Auto Insurance](#).

➤ Across the RASC

RASCals Star Party, Metchosin, BC

by [Nelson Walker](#), Vice President, Victoria Centre

Join us for a RASCals Star Party in Metchosin, BC. August 17 - 19. Good skies, just twenty minutes from beautiful downtown Victoria. Overnight camping available by donation. RASC Victoria Centre, details at [RASCals Star Party](#).

➤ Bulletin Photo of the Month

The Sun

by [Ron Brecher](#), Kitchener-Waterloo Centre



This image of the Sun was taken from Guelph, Ontario, through a SolarView 50mm f/8 on an EQ-6 mount. 1500 frames were used for the Sun's disk, and 500 frames for the sun's prominences were captured in an AVI video file.

➤ [The Sky this Month](#)

[What's New in the Sky](#)

Members are encouraged to check out the [Northern Skies](#) section of the RASC Web site. Thanks to **Gary Boyle** for keeping us all in the know.

► Dates to Remember

- **2012 August 16-19** - [Starfest](#), the 31st annual event of the NYAA, Ayton, ON
- **2012 August 16-19** - [Saskatchewan Summer Star Party](#), Cyprus Hills Interprovincial Park, SK
- **2012 August 17-19** - [RASCals Star Party](#), Metchosin, BC



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